

DATA SENSING CIRCUITS AND METHODS FOR MAGNETIC MEMORY DEVICES

ABSTRACT OF THE DISCLOSURE

5 Data sensing circuits for a magnetic memory cell include a current source
circuit that selectively supplies a current to the magnetic memory cell. A first storage
device selectively coupled to the magnetic memory cell stores a voltage representing a
state of the magnetic memory cell. A second storage device selectively coupled to the
magnetic memory cell stores a voltage representing a state of the magnetic memory cell.
A differential voltage sense circuit coupled to the first and second storage device that is
configured to generate a sensed data output signal for the magnetic memory cell
10 responsive to sensing a difference between voltages stored in the first and second
storage devices. A control circuit generates control signals to control the current source
to supply current to the magnetic memory cell and to control the coupling of the first
and second storage devices to the magnetic memory cell. Magnetic memories and
methods are also provided.

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